

When Mr. Tate was kind enough to write me for my poor opinion on the subject and wanted to know what the incentives to labor were, I told him that I thought that hunger and cold, or the fear of them, were the greatest incentives to labor. I still think so. But there are other incentives. There is a desire to accumulate a competence and there is ambition; but the desire to accumulate a competence, and ambition, are things which must be instilled into the mind by the fear of hunger and cold, which are instilled by experience, especially at this time of the year and in this particular latitude and longitude.

Among those who are found in the state reformatory there are almost none who are well-skilled in any useful craft, with the exception of a few who come on account of crime that is not of the usual character; neither are these young men skilled in the school of letters; neither have they had religious training; neither do they come from good homes; and when you find so many of these most unfortunate circumstances applying to almost all the young men that we have to deal with, you can understand that the conditions are really better than one might think them to be, when it takes so many adverse circumstances to bring about the results to which I have referred. There are, of course, in this state many thousands of young men who do not live in good homes, many thousands who have gone through periods of idleness and many thousands who have no homes, and still the numbers in the state reformatory are only a few hundreds and many of them are not residents of the state.

I am a strong believer in industrial training. I am not a judge of the kindergarten, but I make this point, that in the industrial training of boys of some years, the product of the work should have value and they should know that it has value and appreciate it in order to get the full benefit of the training upon their bodies and their minds.

SUPT. ROGERS: The value of industrial training, manual training, to the work of the school for feeble-minded goes without saying. We have with us a class which does not attempt to live by its wits and we have had very few to whom we have been able to hold out, as an incentive, hope of being president of the United States. Consequently, the question of incentive to employment is a very important one with our children and we have to watch each individual case with a great deal of care to discern that which will appeal to it as an incentive. Perhaps, get down to the very simplest things, the most important incentive, or rather the surest incentive, or the most available, is ownership, the desire for ownership, the possession of that which

is made; the next, is opportunity to make someone else happy by giving that which the child has made. These are fundamental and important and interest many of our indolent children in some form of manual occupation. This kind of occupation appeals particularly to our children from the fact that it affords an opportunity to really accomplish something. The feeble-minded child is always handicapped with other children. He is the one that is snubbed, left out of games, left out of things that others enjoy and that he wishes to enjoy, and when he finds that he can really make some little thing himself there is a sense of equality that develops, that appeals to him and stimulates him to further effort. One characteristic of the feeble-minded is the lack of will-power, the lack of continuity of action. If you were to ask me how I would define feeble-mindedness scientifically, I would say that we could rather test it by certain laboratory methods and one of those methods would be this: If a feeble-minded child were required to keep his arm in motion a given length of time we would find that, unless he were stimulated frequently, he wouldn't keep it in motion that length of time. He would move it a little bit and then he would stop and if he were stimulated again he would move it again and then stop, and if the right mechanism were applied to him for recording these movements we would have what I have tried to indicate here (showing diagram)—we would have these irregular, spasmodic efforts recorded, while, if that same instrument were used to test a normal person, we would have this pyramidal series of lines—that is, the normal person would keep up those motions to the utmost extent that he could, but gradually the space through which his arm would move would lessen and run out to nothing but a line. Now, to develop continuity of action in the feeble-minded child, there needs to be something that will appeal to the child for a definite length of time. If he finds that he can accomplish something, then he is anxious to keep at it until it is completed. So, if the careful teacher will select something in the early stage of the training that does not require a too long application of will-power, he can succeed after a while in developing power of application for a greater length of time. So, industrial training is adapted particularly to the training of the feeble-minded child.

As to the epileptics—the epileptics are particularly introspective people; they are always thinking; they are led by their training and by their environment at home to think of themselves. Other people are continually talking about them in their presence and telling

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how they can't do this and can't do that and they are consequently not required to put forth any great effort of will to do things, even to control themselves, but are all the time blamed if they don't control themselves. These things develop helplessness and irritability. Now we find that manual training, which takes their minds off from themselves and requires its application to the making of something outside of themselves, develops wonderful self-control.

SUPT. TOMLINSON: To fill in the gap for a few minutes, I would like to say something in regard to Professor Tate's paper with regard to the physiological aspect of the subject. To any student of development in the animal kingdom it soon becomes apparent that it follows a definite order and method and that it is systematic; that whenever the conditions in the environment of the animal or association of animals become such that this order is no longer possible and the method can not be carried out, then the opposite process begins—that of degeneration—and the animal, instead of developing or even maintaining its status, goes backward. It is also a fact, too, that in muscular effort, if the effort is not co-ordinated as we say, that is, if all the muscles necessary to make the effort do not act in unison and proper proportion, the result is that the effort is not only a failure but it produces fatigue and with this fatigue comes incapacity. Now, to reverse that process and apply it to those who are defective and primarily without the capacity for orderly method, or who, on account of conditions in the environment of the individual, have not developed in this regular and definite way, you can see how exactly the same process which in the lower forms of animal life results simply from untoward conditions in the environment, and for which no one is responsible, may, in the higher animal, result in stopping the development of the individual and bring about the process of degeneration, or produce in him a condition of physical fatigue which results in incapacity. I think that investigations have shown that the central characteristic of what is called the criminal type, or delinquent type is incapacity, physical and mental, and that in them those occupations, which in the ordinary individual produce satisfaction, produce fatigue and this fatigue is extreme enough to be exhausting and to give rise to physical discomfort. Now a further study of these individuals shows that they lack in the power of attention and control; that it isn't possible for them to grasp the different characteristics of a condition in environment of the individual, the different requirements of an occupation, no matter how simple, so as to combine the different elements of a problem, whatever it may

be, in such a way so as to be able to solve it without extreme discomfort to themselves. With this lack of capacity there gradually develops the tendency toward dropping back, in other words, degenerating, to the more purely animal characteristics of the individual. They also are easily moved in one direction or the other; they are easily swayed by trivial changes in the environment, trivial sources of discomfort, trivial obstructions or interferences, and these things in their turn give rise to discomfort which expresses itself usually in the form of physical violence or of mental, emotional disturbance. Now, applying this analysis of the abnormal to the normal, it can easily be seen that if the effort or instruction of the individual is not such as to co-ordinate all his activities—for instance, as Mr. Tate referred to in his paper, if the order in which the muscular power and the order in which the motor capacity develop was such that one part was developed disproportionately to another; if there wasn't a uniform method in this development, the result would be that there would be an extreme manifestation in one direction and a lack of capacity in another. As a result of this, when the efforts of the individual are given towards some problem in his environment which resulted from the activities of others, his failure to solve the problem gives rise to physical discomfort and, not only that, but it gives rise, on account of this inco-ordination, to mental confusion; and all these things in their turn not only excite emotional disturbance but they produce physical fatigue out of all proportion to the apparent effort involved in the undertaking. On the contrary, it is known that certain activities (and this is proven experimentally on lower animals and especially on microscopic forms of animal life) that certain activities result in the improvement of the nutrition of the individual, increasing his growth and capacity to care for himself, and that in the higher animals these processes gradually become complicated and changed from their original simplicity, so that there is nothing left but the sense of well-being, or, as we call it, of pleasure resulting from a certain action; and we know, as a matter of analogy, that all of the activities which are manifested in the most highly organized individual are simply complications and elaborations of simple processes involved in the efforts of the lower animals toward the maintenance of their physical well-being through the nutrition of their bodies. Now the result of this is that physical effort which is followed by the accomplishment of the purpose for which it is undertaken gives rise to a feeling of well-being—in other words, of pleasure; and just in proportion as there is order and method in the